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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,879	08/06/2001	Eshan B. Yeh	207275.0499	9057

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EXAMINER

JOLLEY, KIRSTEN

ART UNIT

PAPER NUMBER

1762

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/922,879

Applicant(s)

YEH ET AL.

Examiner

Kirsten C Jolley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 4-10, 12-14, 17, 20 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 11, 15, 16, 18, 19, 21 and 23-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3/1/02, 3/1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed March 1, 2002 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of European patent 0068232, which is not in the English language. The European reference has been placed in the application file, but the information referred to therein has not been considered.

Specification

2. The use of trademarks has been noted in this application on page 12, line 14 and pages 14, 15, and 21. Trademarks should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Election/Restrictions

3. Applicant's election of Invention I, claims 1-9 and 11-29, as well as species 1 of treating with an alkaline agent and species 2 of epoxy groups associated with a fixed positive charge, in the response of November 24, 2003 is acknowledged. Upon further consideration, the Examiner

has withdrawn the requirement of species 3 (exposing to an agent prior to or concurrently with exposing to charge modifier). Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

4. Claims 4-6, 7-10, 12-14, 17, 20, and 22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Invention II and non-elected species, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-3, 11, 15-16, 18-19, 21, and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ostreicher (US 4,981,591) in view of Kunin (US 4,747,955).

Ostreicher discloses a process of preparing cationic charge modified filter media comprising cellulosic fiber filter elements and a cationic charge modifying system bonded to the surfaces thereof. The primary cationic charge modifying agent is a water soluble organic polymer capable of being adsorbed into the filter elements, whereby each monomer of the polymer has epoxide groups capable of bonding to the hydroxyl groups on the surfaces of the filter elements (col. 4, lines 35-42, and col. 8, lines 15-20). Ostreicher teaches applying the charge modifier to its filter element substrates followed by drying the treated material. Ostreicher lacks a teaching that its filter element substrate may be polyester.

Kunin is cited for its teaching that polyester fibers are advantageous over cellulosic fibers as filter aid material because polyester fibers are less compressible, less susceptible to chemical degradation by acids and bases, have fewer floaters, have enhanced precoatability and backwashability characteristics, and are more readily disposed of than cellulosic fibers (col. 3, lines 43-64). Kunin's invention discloses that polyester fibers may be a substitute for cellulosic fibers as filter aid material upon treatment of the fibers with a hot caustic/alkaline solution (such as sodium hydroxide solution) to convert the normally hydrophobic surface of the fibers to a hydrophilic surface (col. 3, lines 14-38). Kunin does not state that treatment of its polyester fibers in a hot caustic solution causes alkaline hydrolysis of the polyester, however it is the Examiner's position that alkaline hydrolysis necessarily occurs since Kunin teaches similar process steps and materials as those claimed by Applicant and taught in Applicant's specification. Any differences in properties between the claimed invention and that of Kunin must have been caused by process variables not claimed in the instant application.

As to claims 1, 3, 11, 15-16, 18-19, 21, 23, it would have been obvious for one having ordinary skill in the art to have substituted the caustic solution-treated polyester filter material substrate of Kunin for the cellulosic filter material substrate in the process of Ostreicher with the expectation of improved properties such as less compressibility, less chemical degradation, enhanced precoatability and backwashability, easier disposal, etc. because Kunin teaches that when polyester is first treated with a hot caustic solution, polyester fibers may be substituted for cellulosic fibers in the manufacture of filters.

As to claims 2 and 24, Kunin does not teach that the treatment with alkaline agent (sodium hydroxide solution, for example) may occur concurrently with the treatment with charge modifier. However, it is the Examiner's position that it would have been obvious for one having ordinary skill in the art to have exposed the polyester fibers to an alkaline solution and charge modifier at the same time with the expectation of successful results because Ostreicher teaches that the pH of the charge modifier solution may be increased upward to 8.0 (col. 12, lines 36-44).

As to claims 25-28, it appears that the limitations of claims 25-28 are met by charge modifiers taught in the patents cited in col. 6 of Ostreicher.


Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirsten C Jolley whose telephone number is 571-272-1421. The examiner can normally be reached on Monday to Thursday and every other Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck can be reached on 571-272-1415. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1193.


Kirsten C Jolley
Patent Examiner
Art Unit 1762

kcj